# 2009

**AMBATOVY PROJECT** 

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# [HIV AND STD CAMPAIGN AT THE PLANT SITE]

**ACTION AND SURVEY REPORT** 

#### **SUMMARY**

Our work was to support the HIV/AIDS prevention campaign at the Ambatovy Project and conduct an audit of the subcontractors' activities in this prevention.

In order to support the Campaign, we organized an animation program to celebrate the International HIV/AIDS Day with a few Project subcontractor companies on December 1st, 2009 when we targeted all the workers that had lunch at the Plant Site restaurant. To monitor subcontractors' activities, we set up and collected their monthly reports based on a simple electronic report template. To assess their activities, we conducted quantitative surveys through short simple questionnaires. The LQAS (Lot Quality Assurance Sampling) method was used to select the employees to survey per company. We also attended HSE toolboxes, where HSE supervisors transmitted educational messages on HIV prevention to the labor teams.

We reached about 3,000 laborers during the celebration of December 1<sup>st</sup>, 2009. 15 among 20 companies participated in the quantitative surveys. The samples that were surveyed were mostly men; 90 to 95% of employees know the use of condom as a means to prevent sexual transmission of HIV. In terms of knowledge of the three ABC prevention means of HIV sexual transmission, the minimum score of surveyed companies was 25% and the maximum is 85%. We observed that some employees having had more than one partner for the last 12 months did not always use condoms. As for HIV screening of employees, two companies scored 95% and 85%; the other companies only had scores less than 50%. The scores on employees' access to condoms was 80% (minima) and 95 % (maxima) and scores on access to sensitization under the Ambatovy project was 55% (minima) and 95% (maxima). Various topics related to HIV AIDS were developed by HSE supervisors during their toolboxes; half of them integrated regular STD topics and more than half integrated use of condoms.

The LQAS enabled us to produce the weakest and best performances of the companies, and our entire action and research intervention enabled us to make some recommendations to the Project and the companies working for the Project in order to maintain, enrich and spread the HIV prevention activities.

# **Key Words:**

Ambatovy Project, HIV AIDS, workplace, LQAS

# **INTRODUCTION**

The Ambatovy Project is a very big mining project in Madagascar with a mine site close to the city of Moramanga, a 220 km pipeline bringing the ores to the treatment plant (Plant Site) near Toamasina (see frame) and a construction or an extension of auxiliary infrastructures such as port facilities, new roads and railroad tracks.

The Project lifespan is estimated to be 30 years and manpower during the current construction phase is about 10, 000 people, 15% of which are expatriates<sup>1</sup>.

As a part of its social commitments, the Project accepts to sensitize all of its employees to HIV AIDS and STDs.

For this purpose, the Project Management established and distributed the company's HIV AIDS internal policy to the staff, whose educational programs aim at warning and reducing transmission of this infection.<sup>2</sup>

Indeed, even though HIV prevalence among the general adult population in Madagascar is below 1%, there are many socio-cultural and economic factors that facilitate spreading of STDs/HIV. In fact, very popular with tourists and having a port, the city of Toamasina shelters a big community of sex workers; the city of Moramanga is also a meeting point of truck drivers and carriers, often considered as a high risk group. Finally, the Project employees, both Malagasy and expatriates, can be classified as mobile people working far from home<sup>3</sup>, especially during this construction phase. This situation deserves particular actions on prevention of HIV AIDS spreading.<sup>4</sup>

AIDS can touch any categories of people. In developing countries, it strikes and will continue to strike the most economically and socially active people because of their age, in other words, the working people.<sup>5</sup>

To fulfill its commitments, an official launching of the HIV/AIDS prevention campaign was held at the Ambatovy Project Plant Site. The Plant Site is a complex environment with 20 subcontractors companies (S/C) of more than 6, 000 employees, whose Health, Safety and Environment (HSE) education is ensured by HSE Managers and HSE Supervisors. The strategy used to reach the employees was to use the HSE supervisors in their regular Toolbox (footline toolbox) with their respective teams and transmit HIV/AIDS prevention messages.

For this, the subcontractor companies already received a training manual<sup>5</sup> and materials from the Project to train their HSE to conduct HIV/AIDS sensitization of their teams; many HSE people also received direct training from the Population Services International/M to run HIV prevention sensitization sessions. Other companies also have peer educators among their employees.

The expected result of the campaign is for all employees to receive a clear understanding of the hazards of HIV/AIDS and STDs, and for Companies to regularly report their prevention activities. The company that showed the most commitment to employees' sensitization activities was going to receive a gratitude distinction. <sup>6</sup>

Our action<sup>7</sup> consists in supporting the Campaign, conduct follow-up and assessment, and then make recommendations after an audit of the HIV prevention activities led by subcontractors.

This is a first survey that can be used as a baseline to obtain the essential HIV/AIDS prevention Knowledge and Practices indicators for the Ambatovy Project employees and to be extended to other sites or other subcontractors later.

Our objectives are,

- Actions:
  - Support the launching of the HIV/AIDS Campaign, namely during the celebration of the International AIDS Day on December 1st, 2009
    - At least 50% of the Plant Site population should hear the messages on HIV/AIDS for a period of two (2) months.
    - > At least 5, 000 condoms will be distributed at the Plant
    - ➤ At least once a week, all HSE send messages on HIV/AIDS and STDs during toolbox sessions
    - Five HIV and STDs specification sheets will be developed and used by HSE
  - Implement and monitor the reporting system of companies' prevention

# Research:

Audit the subcontractors on what they have accomplished in the HIV/AIDS prevention and present the results.

- Provide Diagram indicators on knowledge and practices of each subcontractor's employees on HIV/AIDS prevention
- Analyze and compare subcontractors' indicator levels
- Deduct necessary recommendations from subcontractors' regular HIV prevention and the toolbox observation.

# **METHODS**

# DECEMBER 1<sup>ST</sup>, 2009 CELEBRATION AT THE PLANT SITE

In agreement with the Project Departments, respectively in charge of relations with subcontractors companies, and corporate and social responsibilities, we wanted to celebrate the International AIDS Day by reaching the maximum number of workers at the Plant Site. We thus decided, with the CIS (Catering International Service) team, a subcontractor of the Project, to organize the celebration of December 1st. For this, we established some animation stands at lunchtime, between 11 and 2pm, at the entrances of the 2 big restaurants as well as at the 3rd 'satellite' restaurant of the Plant Site.

We collaborated closely with the CIS Recreation team, which has the human resources - technicians, animators, peer educators - and the equipments needed for this kind of event - stand installation, sound system, and projectors.

We ran movies and spotlights, showed a range of posters and booklets provided by the CNLS of Tamatave and PSI/M. We made available at the stand some male condoms and new

technologies such as the CNLS condom distributor at the stands. Our animators launched the sensitization messages between music.

Inside the restaurant, a short movie and sensitizations on various prevention methods were played constantly.

We had the CIS animators approaching the workers to communicate with them and distribute red ribbons, to highlight the celebration. The workers themselves came to the stands.

Another subcontractor company participated actively to the animation by making the Safe Workers of Philippines (SWP) perform dances and speeches on the historic of International AIDS Day and that of red ribbons by their HSE Managers.

#### MONTHLY REPORT GATHERING

At the launching of the HIV/AIDS Campaign in November 2009, a unique monthly report template (Appendix 1) was proposed to the companies to report their HIV/AIDS prevention activities. This excel spreadsheet format template enabled the gathering of information on the session topic, materials used, number of participants, allocated time and eventually an comment by the HSE Manager.

All Plant Site subcontractor companies, regardless of their size, were subject to this report. We started collecting these monthly reports in November as well as eventual narrative reports on other HIV prevention activities at the initiatives of the Companies.

We analyzed the companies' regularity in sending these reports electronically, which summary is essential for the Project Officials to report to their head office as well as to the Malagasy Government Organizations concerned by the Project.

We collected these reports in parallel with the assessment of the companies' prevention activities.

To assess the subcontractor companies' HIV/AIDS prevention activities towards their employees, we:

- Conducted quantitative investigations on employee samples
- Attended HIV Toolbox activities

# **QUANTITATIVE SURVEYS ON EMPLOYEE SAMPLE**

Before conducting the quantitative survey activities, we wrote a study protocol<sup>8</sup> defining the objectives of this audit, the list of indicators to be measured, the quantitative survey to be conducted, the different constraints to be considered, the sampling method, the questionnaire template to be suggested, and the execution planning.

We submitted this protocol to the Project Departments, in charge of subcontractors' relations, and to Corporate Social Responsibilities officials for validation.

We established a one-page survey questionnaire, which could be filled by the surveyed person, anonymous, focusing on the individual's category and essential knowledge and practice indicators on HIV/AIDS prevention.

We pre-tested this questionnaire on some workers who had lunch at the Plant Site restaurant. This pre-test enabled us to validate the use of the questionnaire.

Initially written in Malagasy, the questionnaire was then translated to French, English, Chinese and Thai for other Plant Site workers who were more familiar with these languages.

In order to determine and compare the companies' performances, we chose the LQAS method (Lot Quality Insurance Sampling) to select the employees to be surveyed per company.

The LQAS method is a research method frequently used in the public health sector<sup>9</sup>, which gives 92% of precision in the measurements from a random sample of 19 elements per area. In this survey, each subcontractor company at the Plant Site was considered as a supervision area where we randomly selected 19 employees.

In fact, every company had its own list of employees, received the same tools for the HIV prevention activities (training manual, posters, booklets, boxes of condoms) and had the same structure to sensitize their employees (HSE Managers, HSE supervisors, regular Toolbox).

We asked the selected employees' consents through their HSE managers.

Any Plant site company having more than 19 employees could participate in the survey.

Selection of the 19 employees per company was made as follows:

From the company's list of employees, we deducted each company's total number of employees; we then calculated the sampling interval to select 19 employees from the list. We made the first selection with a random number, and then from sample to sample selected the 19 employees to be surveyed.

We added an additional list of random numbers of employees in case some of them, from the initial selection, were not available for the survey.

We submitted this list to the HSE Manager who gathered the 19 selected employees, including the eventual replacements of those unwilling or unavailable. These selected employees were gathered by the HSE Manager to a place and at a time of the company's convenience.

We explained, in advance, the objectives and the filling out procedures of questionnaire to all participants, and then distributed them to everybody, who completed them anonymously. It generally took 5 minutes for each individual to fill out the questionnaire; and we immediately collected all completed surveys from the company.

We thus conducted the survey on employees of the Plant Site companies from December 14 to December 19, 2009.

# **Data Treatment**

We controlled, selected and numbered the 19 forms per company, made a copy of these forms through the EPI6 (Epi Info) software; the data were then transferred and treated in an Excel spreadsheet in order to determine the number of individuals that met the standards. Then, we used the look-up Table: LQAS result - Percentage to determine the scores in percentage.

# **OBSERVATIONS OF HIV TOOLBOX**

We observed a few HIV prevention toolbox sessions led by HSE supervisors or workers' team leaders. Toolboxes gather workers, first thing in the morning before work starts, and takes place at the construction site. We attended the HIV toolboxes that were generally held at the end of the week or at the end of the month, upon the company's invitation or upon our own request, depending to the sessions scheduled by the companies.

During the toolboxes that we attended, we observed:

- How the supervisor or team leader approached the HIV matter with the workers
- What prevention messages were communicated to the workers?
- What materials were used by the supervisors?
- What questions were asked by workers?

We took note of the procedures of these toolboxes and the workers' reactions.

Also, to have a better understanding of the lifestyle of these companies' workers, we had stayed at the Plant Site (Construction Camp) for several weeks.

# **RESULTS**

# Result of December 1st, 2009 Campaign:

During this December 1st celebration, we reached about 3, 000 workers / employees who came to eat at the Plant Site's restaurants.

- 2, 000 red ribbons were distributed (red ribbons available).
- 8,040 condoms were directly distributed, averaging a box of 3 condoms for each worker.
- 3,360 booklets were released for the event.





Following this campaign, we responded to all request to supply condoms from subcontractor companies and facilitated access to condoms by installing distributors (offered by the CNLS of Tamatave).

The results of the quantitative survey conducted in December 2009 are as follows:

# Answering companies:

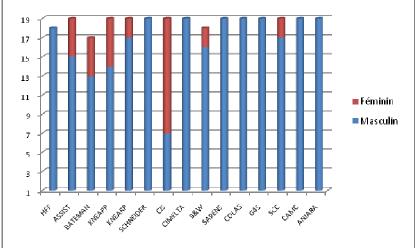
Fifteen (15) out of the 20 Plant Site companies participated to the survey. These were the biggest companies and are presented in Chart 1. The other Plant Site companies had less than 19 employees except one with 100 employees, which was not present at the time of the survey.

Chart: Companies participating to the survey and the number of employees at the time of survey

# Sample Characteristics:

Analysis of the characteristics of the 19 employees per company samples showed that they were mainly men (figure 1), except for CIS whose who has the highest number of female employees in charge of cleaning, catering service, laundry etc...

Figure 1: Sample Characteristics - GENDERS



In the questionnaire, employees' nationalities are classified in only two categories of: Malagasy and Expatriate. Figure 2 shows that there are more Malagasy than expatriates in the samples for most companies except three (3) companies, which samples were only or mainly expatriates.

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#### Figure 2: Sample Characteristics - NATIONALITIES

# HIV/AIDS knowledge Indicators:

Five knowledge indicators on the action, transmission and prevention of HIV/AIDS were measured.

Figure 3 shows high scores, between 85 to more than 95%, in terms of knowledge of companies' employees that HIV destroys immunity of the human body.

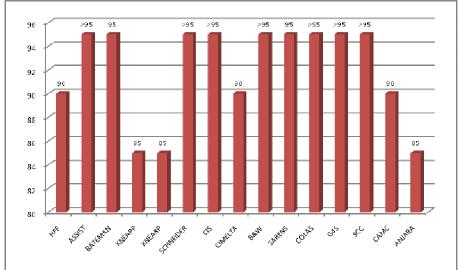


Figure 3: Percentage of employees knowing that HIV destroys immunity of the human body

Figure 4 also shows high scores, between 90 to more of 95%, in terms of knowledge of companies' employees that condom is a means to prevent HIV sexual transmission.

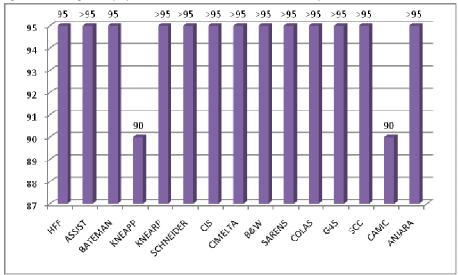


Figure 4: Percentage of employees who know that condom is a means of HIV prevention

Figure 5 shows lower scores (25 to 85%) on employees' knowledge of the three means of HIV/AIDS sexual transmission prevention, which are abstinence, faithfulness and use of Condom.

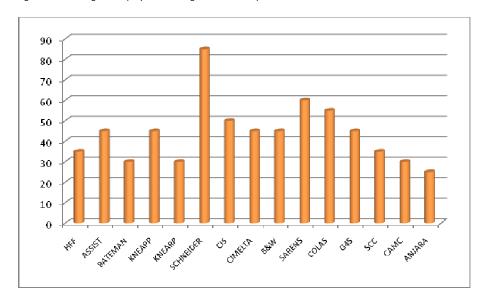


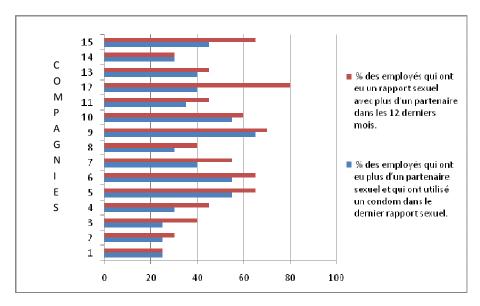
Figure 5: Percentage of employees knowing the three ABC prevention methods

# **Practice Indicators:**

Three practice indicators were measured: promiscuity, use of condoms and HIV screening.

Figure 6 shows that out of the employees who have had more than one sex partner for the last 12 months, 100% of them do not always use condoms. This behavioral tendency was observed within the majority of the 15 companies.

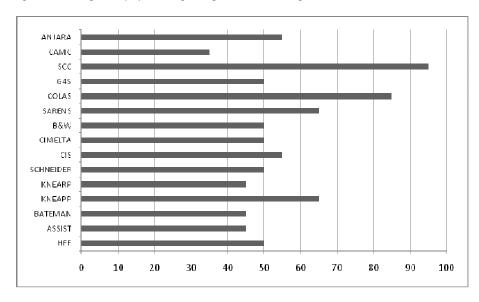
Figure 6: Promiscuity and use of condoms



- % of employees who has had sex with more than one partner for the last 12 months
- % of employees who has had more than one sex partner and used a condom for the last sexual intercourse

Figure 7 shows that the SCC Company differs with a score of 95%, then the COLAS Plant Company with a score that 85% in terms of employees having undergone HIV screening; the majority of other companies did not score over 50% of its employees on HIV screening.

Figure 7: Percentage of employees having undergone an HIV screening



# **Access Indicators:**

Two access indicators were measured: access to condoms and access to sensitization

Figure 8 shows scores that 80 to 95% of employees of companies always have access to condoms whenever they need.

Figure 8: Percentage of employees who always have access to condoms whenever they need

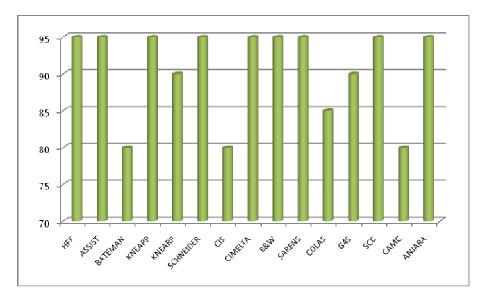
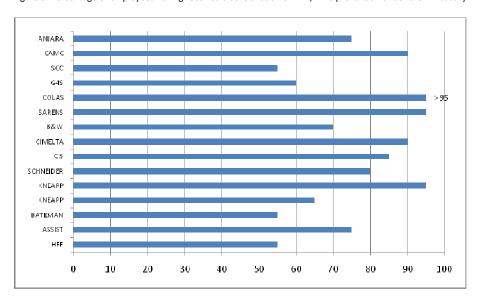


Figure 9 shows that from 55 to 95% of companies' employees have received a sensitization on HIV/AIDS prevention under the Ambatovy Project; COLAS has the highest score.

Figure 9: Percentage of employees having received a sensitization on HIV/AIDS prevention under the Ambatovy Project



# **HIV Toolbox Observations**

We attended 3 HIV toolbox sessions organized by three companies in December 2009 and then in January 2010. Each session lasted about fifteen minutes.

The HSE supervisor or the team leader led the session in front of a group of workers. He announced the topic of the session: in one of the cases, he read a text that highlighted the dangers of STDs and HIV and the means of protection from them; in two other cases, he spontaneously talked about the causes of AIDS and the importance of screening; during one of these sessions, the HSE supervisor used advice cards. The HSE supervisor also sparked off questions and answers from the workers.

We noted a few reactions of the workers:

- The discussion was lively, in which workers still showed their lack of understanding on the context of fight against AIDS and HIV positive stages
- In one case, the workers only listened and did not ask any questions
- In another case, the workers expressed their need for condoms and the fact that they do not know where to screen for HIV.

# **Gathering of Companies' Monthly Reports**

The companies started to have a simple and uniform report template to report their HIV prevention activities. In November 2009, 12 out of 20 companies submitted their reports to us (12/20).

The other 8 did not send any reports despite several requests. Either they did not carry out any HIV prevention activities, or they did but did not think that the report is important.

We analyzed the 12 November reports altogether and deducted the following information:

Table 2: Analysis of monthly report contents

Sensitization Topic	HIV/AIDS, STD, transmission causes, prevention means, condoms use, HIV screening, International AIDS
	Day, Peer Educators, Inappropriate behaviors of soliciting prostitution
Number of sessions per month	1 to 6
Means used	Brochures, posters, wood penis, condoms, training manual, PowerPoint, Computer, verbal, skit
Number of participants	Per group: from 9 to 300 participants
Allocated Time	7 to 45 minutes on sensitizations, 6 to 12 hours on trainings

Table 2 shows that the companies included various HIV AIDS related topics in their sensitizations. In addition, half of them integrated topics on regular STDs.

They used the materials the Project provided and took the initiative to use other means of educating their employees (such as PowerPoint, Skit).

In more than half of the cases, the educational part was on use of condoms.

The participants of one group could be very many; it could go over a hundred. We were not always able to know the number participants included in the companies' reports, unless these latter did it themselves to make sure the participants are not counted two or many times. Thus, the COLAS Company specified the number of its sensitized employees in November 2009 at 595 people.

The average time allocated to the sessions seemed to be much longer (over 15 minutes) than the theoretical toolbox time (6mn).

# Narrative Reports at the Companies' initiative:

Three companies (COLAS, CIS, and ASSIST) shared their activities or their narrative reports illustrating the events they organized at their own initiatives, which integrate HIV AIDS sensitization.

These events, like sport competitions or parties out in the open, attracted many employees and provided more time and space to hold interpersonal discussions on HIV AIDS prevention and organize testing sessions.

According to assessment's results, the COLAS Company was the one that distinguished itself the most in terms of HIV AIDS prevention activities to employees.

#### **DISCUSSION**

The essential objectives set at the beginning of our intervention were reached, in terms of actions: the number of employees sensitized on HIV AIDS and the number of condoms to be distributed were reached thanks to the International AIDS Day Event, as well as the establishment of a reporting system for the companies;

In terms of subcontractors' activities assessment, indicators related to workers' knowledge and behaviors as well as indicators related to access to prevention were identified and were measured. These measurements were possible thanks to the availability of the LQAS method, which implementation did not require the use of a big team or a longer procedure than our intervention capacity (1 person/2 months). The collaboration between the consultant and each company's HSE Manager were practically enough to conduct the surveys and to collect the data to be used.

The fact of giving the form to be filled out by the employees themselves created more confidentiality to individual responses; the few minutes session of gathering to complete the forms avoided the least disturbance to the companies' production.

The LQAS method enabled an accurate production of the companies' weakest and best performances. It also enabled the most objective identification of who was going to win the distinction.

However, the holding of an HIV toolbox once a week by the HSE was not always respected. We noticed that they held it less often, for example once or twice a month, but the sessions were longer. This can be effectively acceptable, given that the workers' knowledge levels were high in terms of condom use for example, and enabled the holding of longer sessions to learn and exchange adoption of behaviors.

This time, we were not able to draft an HIV and STD fact sheets to be used by the HSE; in fact, as soon as after December 1st, our time were practically absorbed by the quantitative research activities on our subcontractors.

We noticed that none of the companies sent its regular monthly reports on HIV AIDS prevention activities despite several forms of reminders; we noticed that a few companies did not carry out its HIV prevention activities, at least, until the survey time, during which we came into contact with

them. But generally, these employees' sensitization activities and related reports were not a priority compared to their main missions. This is why we cropped, during the presentation of the results to these companies, the fact that their displaced employees are among the high risk groups in terms of STD/HIV spreading. This is also why we put the emphasis on the recommendations.

In fact, the results of the audit and our analysis lead us to the following observations:

- Our targeted group was made of a big number of mobile men or men working far from their home.
- Their HIV knowledge, especially sexual transmission and prevention by use of condoms, was high.
- We have the evidence that among this targeted group, promiscuous people do not always use condoms.
- Besides, these employees did not have full access to condoms
- And the HIV testing coverage was not absolute

The bias to be considered in the results of each company can go back to the fact that the random list of 19 employees that we suggested was not always respected. Some companies respected it to their best (KNE ARP, CAMC, SCHNEIDER, ANJARA, ASSIST, SARENS), but other companies had to fill in with employees that they had available (COLAS, G4S, CIS, HFF); some companies made their own lists (SCC, KNE APP, CIMELTA) after we explained that the study requires a random list.

We were pleasantly surprised that the employees' knowledge level was remarkably high in terms of HIV action on the human body, sexual transmission and prevention by use of condom. This knowledge is effectively essential for our targeted group to be able to go to the next step of preventive behavior adoption. These high levels can be explained by the fact that this information are practically the key messages of the Toolbox and are practically in the employees' environment outside the sites.

We were not especially surprised that the knowledge level would be lower in other prevention methods of sexual transmission such as Abstinence, Faithfulness or decrease the number of partners; it is possible that the employees were not sufficiently educated on these topics or are not convinced of them. Also, we recommended the inclusion of decrease of number of partners to the educational topics of these employees. Indeed, from these employees/workers' way of living, we learned about their often tendency to change partners, which can even lead to perverse incentives in the community.

We shared that the main HIV AIDS prevention's targeted group of the Project is many mobile men or men working far from their home, therefore, the wished behavior for this group is proper and systematic use of condoms (). In order to maintain the knowledge scores at these high levels and to improve other scores, here are a few recommendations.

# **Subcontractor Companies:**

- Continue HIV Toolbox, integrate decreasing the number of partners
- Report these activities every month
- Ensure employees' access to condoms
- Facilitate access to screening

# The Project:

- Continue leadership in innovative actions
- Maintain the monitoring
- Allocate space for prevention (training, reception, storage) of STD HIV AIDS
- Assist companies and respond to their requests
- Continue to take action within the community

The results of these surveys and the recommendations were successively presented to several groups of people:

- The silent partners of our work, which are the Project Department in charge of subcontractor company relations and that in charge of Corporate Social Responsibility
- A group including the Project Management in Antananarivo and representatives of the Communication, Environmental, Local Action and Administration Departments.
- The HSE managers of companies and other representatives of the Safety Departments
- A group including members of the communication, social and administration teams of Tamatave.

The discussions that followed the presentation enabled further strengthening of these HIV prevention activities by the Project, taking of immediate measures, including full access to condoms to all employees and new action perspectives, which are the next steps we suggest:

- Design educational tools for Toolboxes (New topics and reclassified topics)
- Propose the same program package to all the Project sites: Mines and Pipeline
- Support the putting in place of a VCT screening program (Plant site, Mines, Pipeline) and define together the elements of biological monitoring
- Recommend the HIV AIDS prevention structure of the construction phase to the Project Operation phase
- If needed, understand and advise on actions within the community

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**Appendix 1**Template of Company Monthly Report

